

**Report to**  
**GOVERNOR**  
**ROD R. BLAGOJEVICH**  
**and the**  
**GENERAL ASSEMBLY**  
**OF ILLINOIS**



**Regarding**  
**CONTEXT SENSITIVE SOLUTIONS**



## Illinois Department of Transportation

I am pleased to present to the Governor, the General Assembly, and the people of Illinois this report on the Illinois Department of Transportation's continuing development of Context Sensitive Solutions policy. IDOT's commitment to developing practices, policies and guidelines that promote excellence in transportation planning and design are part of the ongoing mandate from this administration to change from "business as usual." Many of the suggested approaches and methods found in this report have been used by IDOT personnel for a long time. Many ideas are new. What is most original, though, is bringing together these ideas into one account.

There are three purposes to this report, corresponding to its three parts. The first is to provide the Governor and Legislature with a description of IDOT's research and development of CSS policy. The second is to set out guidelines for design flexibility and stakeholder involvement which IDOT practitioners can use to achieve transportation excellence. Third, we outline the further work IDOT must do to expand upon and develop good Context Sensitive Solutions policies and practices.

Looking forward, we will use the approaches found here as a basis for an examination of our policies and practices. We will also use them as a model for creating a training program for IDOT personnel, so that they can learn how to use CSS methods in practice. It was not our intention for the concepts set forth in this report to create any hard and fast rules for IDOT to follow or rights for third parties to assert. Instead, they reflect the national consensus to date about how to implement good CSS policies. There is certainly more work to do.

In the 21st century, Illinois, like the nation as a whole, will be conducting a continuous exchange of ideas about how to define and achieve our shared vision of transportation. Context Sensitive Solutions will be a necessary and important component of our ongoing conversation. I look forward to furthering this conversation with the General Assembly, local officials and the citizens of Illinois.

A handwritten signature in black ink that reads "Timothy W. Martin".

Timothy W. Martin  
Secretary

## PART I

### CONTEXT SENSITIVE SOLUTIONS: DEFINITION AND POLICY DEVELOPMENT

#### IDOT Mission Statement

The mission of IDOT is to provide safe, cost-effective transportation for Illinois in ways that enhance quality of life, promote economic prosperity, and demonstrate respect for our environment. We will accomplish our mission while making the following principles the hallmark of all our work: Safety, Integrity, Responsiveness, Quality, and Innovation. The vision of IDOT is to be recognized as the premier state department of transportation in the nation.

#### Definition of Context Sensitive Solutions

Context Sensitive Solutions is an interdisciplinary approach that seeks effective, multimodal transportation solutions by working with stakeholders to develop, build and maintain cost-effective transportation facilities which fit into and reflect the project's surroundings - its "context". Through early, frequent, and meaningful communication with stakeholders, and a flexible and creative approach to design, the resulting projects should improve safety and mobility for the traveling public, while seeking to preserve and enhance the scenic, economic, historic, and natural qualities of the settings through which they pass.

#### Background: the Changing Nature of Transportation

The mission of IDOT has been changing to encompass both connectivity and quality of life.

At the conception of the Interstate system more than 50 years ago, connecting America was the agreed-upon goal of the nation's transportation officials. The Illinois transportation program, in partnership with the US Department of Transportation and the myriad local transportation agencies, has since accomplished the goal of safely and effectively connecting the citizens of Illinois with each other, and connecting Illinois to the rest of the country.

But this success has itself changed Illinoisans' views of what they want from IDOT today. Issues such as traffic congestion, suburban sprawl, preservation of scenic landscapes and historic neighborhoods, and the ability to use our transportation system to walk, bike, and access public transit are now much higher priorities in terms of what people expect from transportation policy.

Context Sensitive Solutions (CSS) aims at addressing these new concerns, and making sure that our trans-



portation projects are designed to improve the quality of life for all who have a stake in the system. Travelers, communities, businesses, elected officials and many others are all considered "stakeholders" in our transportation system.

The CSS process works as a partnership between IDOT and stakeholders to come up with working solutions to Illinois' transportation needs. Stakeholders help IDOT understand their needs for, and concerns about, our transportation system. IDOT can then take this input, along with all of its other work and analysis, and use it to make planning and design decisions.

IDOT still must make the ultimate choices about a project. Safety, the integrity of the transportation system, and good stewardship of the public's transportation dollars all remain IDOT's primary responsibilities. However, thorough stakeholder involvement can contribute to these decisions, and lead to a general consensus about the choices made.

CSS policy seeks to ensure that stakeholders' views are carefully considered in the decision-making process. IDOT has been developing, over many years, methods for involving stakeholders in its decisions, and CSS policy looks to make this a regular process. The CSS approach would involve stakeholders early and often throughout the process, especially before major decisions are made. The information gained from partnering with stakeholders is then used by IDOT to develop an informed solution to the transportation issue.

### Context Sensitive Solutions: Basic Principles

#### What does “Context Sensitive Solutions” mean?

It is an approach that uses many tools with one goal in mind: plan and design transportation projects that “fit” into their surroundings – what is known as “context.” It involves:

- Striking a balance between safety, mobility, community needs, and the environment.
- Involving stakeholders in the decision-making process early and continuously, throughout the development of the project.
- Addressing all modes of transportation in the planning and design of the project, including motor vehicle, mass transit, pedestrians and bicyclists.
- Using all appropriate disciplines to help plan for and design the project.
- Applying the flexibility inherent in our design standards to fit the project into its surroundings.
- Incorporating aesthetics as part of basic good design.

With the CSS approach, transportation agencies reach out to and involve stakeholders in the planning and design of the project.

**What is a “stakeholder?”** Generally speaking, a stakeholder is any person or organization that has a direct stake in the project being considered. This can be a small group of residents and businesses affected by, for instance, the redesign of a rural intersection; or, this could include thousands of individuals when, for instance, a major new roadway is being built. In the latter case, it is especially important for the transportation agency to have a systematic method of reaching out, so that representatives of all the possible individual stakeholders can be organized and can communicate clearly with the agency.

#### Stakeholders Can Be

- Residents and landowners near a project
- Minority communities affected by a project
- Businesses affected by the project
- Advocates for policy, community and historic interests
- Elected officials in whose jurisdiction the project is located.
- Governmental resource and regulatory agencies.
- Travelers who use the facility.
- **AND**, a stakeholder may be many of these at once.

### Policy Mandate

In 2003, legislation (PA 93-0540) was passed instructing the Illinois Department of Transportation to adopt CSS principles in its planning and design of major projects.

For more than a year, IDOT has been carefully researching and developing a set of guidelines and an approach to CSS that will work best for our unique transportation circumstances.

As a specific matter of policy, IDOT is looking to implement a standard process of stakeholder involvement that is:

- Applicable to a wide range of projects. Currently, IDOT uses extensive stakeholder involvement on very large or complex projects. The goal would be to apply CSS principles on “standard” and smaller projects. However, budgetary concerns may limit the number of projects that can use the CSS approach fully, at least for the near future. The judgment as to whether a project is “major,” “standard” or “smaller” will largely depend on the extent of the work likely to be needed, as well as its cost.
- Flexible and modular. The amount and kind of stakeholder involvement should be modifiable based on the size, complexity, nature and location of the project. A large suburban project is probably going to involve more CSS work than a small rural project. Likewise, a project located through the center of a town is going to involve different issues than one that is located in a scenic landscape
- Simple enough to create as few “new rules” as possible, to avoid adding a new layer of process to an already burdened planning and design schedule. There is much that IDOT does already that uses the principles of CSS and stakeholder involvement. As much as possible, guidelines for using stakeholder involvement for projects should incorporate current IDOT rules and practices in one centrally-located and easy-to-use manual.



### Federal Involvement in CSS

The federal government, through the Federal Highway Administration (FHWA), is encouraging states to adopt the CSS approach to transportation planning and design. In 1997, the FHWA implemented a pilot project for CSS, using CSS techniques on transportation projects in five states across the country: Kentucky, Utah, Minnesota, Maryland and Connecticut. All of these states have since adopted the CSS approach in their transportation decision-making.

Currently, 26 states either have adopted a CSS policy or are developing one. The FHWA has set a goal of all states adopting the CSS approach by 2007.

The FHWA has also written one of the authoritative works on the CSS approach, "Flexibility in Highway Design."

Given its emphasis on encouraging CSS policy nationwide, the FHWA has been an active partner with IDOT in developing the state's guidelines and policies. FHWA personnel from the Springfield office have been included in the internal working groups which have

developed this report and other policies. FHWA also maintains a presence on IDOT's internal CSS oversight committee and has provided input on policy development.

FHWA headquarters in Washington has published criteria to determine if a state has adopted a full CSS policy.



## MEETS FEDERAL CSS/CSD CRITERIA

*(from the 2/27/2003 CSS/CSD Game Plan)*

**Criteria A**.....there is a written commitment or policy.

**Criteria B**.....technical staff is trained in CSS approach, both in field and central offices and across disciplines (planning, environment, design, right-of-way, operations, maintenance).

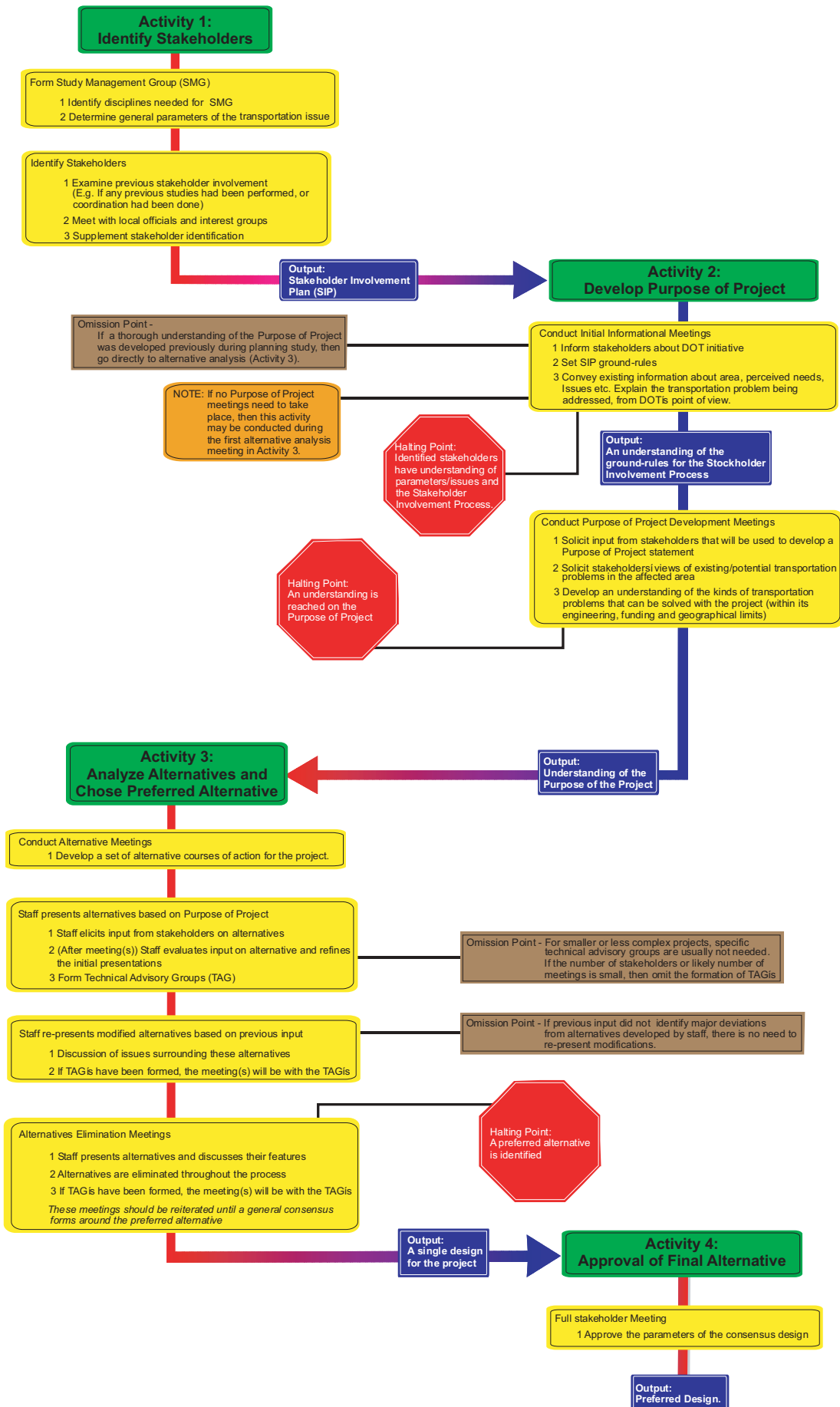
**Criteria C**.....most projects are being implemented using CSS approach, tools and methodologies.

**Criteria D**.....there is early, continuing, and iterative public involvement throughout the project development process.

**Criteria E**.....interdisciplinary teams are involved in the process from the beginning to the end.

*The plan for creating and adopting IDOT's CSS policy set forth in this report seeks to comply with all of the above criteria.*

# Stakeholder Involvement Process



### Development of IDOT's CSS Policies

Since late 2002, IDOT has endeavored to research and develop a CSS approach that fits best into the transportation needs and budgetary constraints of the State of Illinois and works well with IDOT's structure. Following is a summary of these activities.

### Outreach and Information Gathering

During 2003, IDOT conducted 20 individual meetings with Metropolitan Planning Organizations (MPO's), mayors' councils and county engineers' boards across the state. The purpose of these meetings was to inform these bodies of IDOT's decision to develop a CSS policy, and to educate those who might be unfamiliar with the subject of CSS.

In Fall 2003, IDOT conducted five "open house" meetings throughout Illinois to solicit feedback on CSS, in Collinsville, Carbondale, Peoria, Chicago and Decatur. Invitees were mostly representatives of advocacy groups that have a direct interest in transportation policy, as well as local officials and legislators. More than 135 participants, representing approximately 90 Illinois organizations, municipalities and firms, attended these events.

IDOT policy staff also held detailed interviews with personnel in several state departments of transportation that had developed CSS policies. The purpose of these interviews was to determine what CSS techniques work in practice, and to understand the different approaches states have taken in forming and implementing CSS policies.

**Feedback:** Overall, three important themes have emerged to guide IDOT in its ongoing development of CSS policy:

- Transportation projects must be approached in a multi-modal scope, especially with regard to accommodating pedestrian and bicycle needs.
- Stakeholders need to be involved in transportation planning and programming decisions, and not just in the design decisions.
- A public perception exists that IDOT design standards are too rigid, and therefore a major source of stakeholder resistance to IDOT plans.

Each of these issues, and others, should be part of the ongoing conversation statewide between IDOT and stakeholders about the development of transportation planning and design techniques. IDOT will continue to engage business, resident, interest and other stakeholder groups to understand, clarify and develop answers to these issues.

### Research

A literature review was conducted of the major texts on CSS methods and policies.

- "Flexibility in Highway Design," published by FHWA, 1997. This booklet details the various methods for using the flexibility inherent in the "Greenbook"<sup>1</sup> engineering guidelines for more context-fitting roadway designs.
- "Guide for Achieving Flexibility in Highway Design," draft version, AASHTO (2004). This book, the draft version of which was relied upon by IDOT staff<sup>2</sup>, serves as AASHTO's official guideline to implementing the CSS approach. It will be published in Spring 2004.
- "A Guide to Best Practices in Achieving Context Sensitive Solutions," NCHRP Report 480 (2002). This report details the best industry practices for implementing the CSS approach and includes extensive case studies of CSS projects from around the country.
- "Thinking Beyond the Pavement" Conference Report (Maryland State Highway Authority, 1998). This report details the conclusions drawn during the first nationwide CSS conference.

### Training

In addition to interviews, outreach and literature review, a two-day seminar on CSS was held in Summer of 2003 for 40 upper level personnel at IDOT and the Springfield office of the FHWA. The seminar was taught by staff of the University of Kentucky's Transportation Center (KTC), a leading institution in the development of CSS research and concepts. This ensured that top-level personnel in Illinois statewide transportation are familiar with the CSS concepts and approach as well as the benefits of using CSS.

### Policy Development

Based on the activities outlined above, IDOT has drafted a set of policies and approaches that fits CSS into the particular features and issues of Illinois transportation. These guidelines will be set forth in an upcoming expansion of this report. The approach set forth is based both on the nationwide best practices and the practical realities of Illinois transportation.

### Website

IDOT has developed a website for its Context Sensitive Solutions policy. Visitors can browse through the site to learn about IDOT's development of CSS policy and how it will be implemented in future projects. In addition there are links to the use of CSS in other states and at the federal level. Visitors to the site can also provide feedback and suggestions to IDOT. Both this Report and the companion CSS Guidelines will be available on site. The website's address is [www.dot.il.gov/css/home.html](http://www.dot.il.gov/css/home.html).

## PART II

### SUMMARY OF CONTEXT SENSITIVE SOLUTIONS GUIDELINES

This section of the report summarizes IDOT's guidelines to using Context Sensitive Solutions as a matter of practice. An expanded version of these guidelines will be published as a companion volume to this Report.

#### The Stakeholder Involvement Approach

- **Listening to Local Stakeholders:** Local communities have much to offer—ideas, values, creativity, and strategies for success. The public, local elected officials, and local agency staff will quickly bring to light project constraints and opportunities. They must be listened to carefully, since they live with these circumstances every day, and will have to live with the results of any project. Designers should consider conflicting values respectfully, and seek a shared set of values for the project.
- **Early Stakeholder Involvement:** IDOT project management teams will begin projects with a discussion of stakeholder involvement and develop a specific plan for that process. This should occur prior to or very early in the programming process. Varied levels of involvement will be needed depending on the project.
- **Solving Transportation Problems:** Designers should approach a project as a transportation problem to be solved, not as a solution to be sold. IDOT is a transportation problem solver. Input from the stakeholders for any given project is necessary to make sure that all of the problems and potential solutions have been identified.
- **Involving Local Officials:** Elected local officials are the best place to begin the Context Sensitive Solutions process. They can identify problems, suggest solutions and make recommendations about who the other stakeholders might be. Coordination with them is necessary on any project that affects their community.
- **Seeking Input from Other Agencies:** IDOT personnel should seek to coordinate with local, state and federal resource agencies. These bodies are part of a process to garner input on project decisions, and this should be continued and expanded where possible.

#### The Multi-Modal Approach

Since ISTEA, it has been Congress' desire for states to view highway improvements in the broader context of transportation improvements. It is important for designers to look beyond the highway portion of the project and consider the kinds of multimodal corridors that maximize all transportation efficiencies, not just those related to highways.



A balancing of these interests and constraints, and a serious search for consensus among them, is what IDOT can offer to the traveling public.

- IDOT will look at a full range of transportation options and how they affect mobility for all users.
- Moving as much vehicle traffic as possible, as quickly as possible, may not always be the best goal for the non-interstate system.
- IDOT will seek to further coordinate efforts with public transportation agencies to determine what kinds of transportation opportunities exist for a particular project.

#### The Flexible Design Approach

- IDOT staff should be informed but open-minded, displaying to stakeholders both an understanding of the engineering behind the design decisions, and an understanding of the many areas where flexibility is feasible.
- IDOT staff should research and use new ways of solving the transportation problems presented, without falling back on the "we've always done it this way" reason for making a decision.
- Staff should expect to find a greater desire for flexibility in community settings, due to the uniqueness of those areas and the social context of design decisions in these areas.



### The Multi-Disciplinary Approach

In order to bring to the design process all of the possible options for a transportation project, IDOT project managers must consider consulting with professionals from other disciplines, as appropriate.

Typical disciplines to be brought in as technical staff may be:

- **Community Outreach Professionals**, who can plan for and run the various forms of stakeholder involvement (meetings, media, updates, websites, etc.), allowing the design staff the opportunity to focus on overall project management and engineering.
- **Landscape Engineers and Architects**, who can provide important input on design and aesthetics, helping to make the project “fit into the context” of its surroundings.
- **Historical Preservation or Archaeological Specialists**, who can assist on the projects which are likely to have an impact on historically or archaeologically significant features and structures.
- **Environmental and Resource Specialists**, who should be consulted early and often regarding the often complex environmental and resource issues that can emerge during project development. Such personnel can provide contemporaneous input to come up with creative solutions to environmental issues.
- **Public Transportation Agency Staff**, who can address the multi-modal issues that arise if the scope of the project involves a public transportation system (subway, bus, etc).

### IDOT Maintains the Final Word

IDOT is the agency responsible for the safety and integrity of the state transportation system. As such there will be considerations which can not be compro-

mised. There will be many different stakeholders, such as local elected officials, environmentalists, other agencies, special interest groups, property owners and the general public, for each project; each will have differing views and interests. Although conflict resolution is a tool to resolve these differences, IDOT is held ultimately responsible and therefore makes the final decision.

### The Stakeholder Involvement Process (SIP)

The flowchart, found on pages four and five of this report, demonstrates how a Stakeholder Involvement Process (SIP) would work, at the practical level. The process should not be followed blindly, however. IDOT project teams should look at the needs for a particular project, its timetable, and its budgetary limitations and put together a plan for involving stakeholders that fits the complexity of the project. The process set forth here is a suggested model, and should be reasonably tailored to the needs of a project.

To reflect this, the SIP model contains the complementary concepts of “omission points” and “halting points.” The “omission points” show where and why certain activities may be omitted from an SIP for a particular project. The “halting points” show under what conditions certain activities, if undertaken, can be considered completed.

IDOT considers the stakeholder involvement process to be most appropriate for projects where the nature of the facility will be significantly altered, such as rehabilitation, reconstruction or new alignments. Thus, it is usually not appropriate to conduct a SIP for maintenance or resurfacing projects. The SIP shown here will be explained in greater detail in the CSS guidelines companion volume to this report.



## PART III

### NEXT STEPS

The methods and approaches outlined above, and detailed in the guidelines companion volume to this report, represent only the first part of the continuing conversation that is CSS policy. IDOT considers a clear system of stakeholder involvement, coupled with a statement of design flexibility, to be the requisite beginning of CSS policy development. IDOT has, for many years, been using many portions of the approaches outlined in this report to solicit opinion from and involve the public on many projects statewide. However, these methods have never been put in one easily referenced place. That has been the purpose of this report.

Now that a quick reference guide is available for both the public and professionals, IDOT must look to future portions of the CSS conversation. Some are suggested here. Input from consumers of this report, in the form of critiques, suggestions, or other topics needing attention, is welcomed.

#### Training

If CSS principles and methods are to be followed consistently, IDOT staff must be able to receive training in the latest approaches and techniques. No single statement or report can substitute for good instruction.

In the coming months, IDOT will develop a CSS course for its internal training program. Such training should encompass the following themes:

- General instruction regarding the stakeholder involvement and flexibility guidelines, when to use them, and what they require.

- Training in practical stakeholder identification and outreach methods.
- A set of techniques for public outreach and involvement, to be used in the appropriate occasions, to ensure that meetings between IDOT and stakeholders are productive.

#### Further Development

IDOT will continue to engage the professional, business and advocacy communities to address issues and concerns beyond this report. Possible issues include:

- Examination of IDOT's cost-sharing policies for bicycle and pedestrian accommodation.
- Consideration of how to integrate greater public involvement in the initial project conception and planning process.
- Development of regular courses and training on CSS in the state's engineering schools.
- Development of an excellence in design award for outstanding project achievements.
- Updating, where necessary, IDOT's design manuals to reflect a greater emphasis on stakeholder involvement and design flexibility.

IDOT looks forward to continuing dialogue with the people of Illinois. Together, we can maintain the long tradition of excellence in transportation for which Illinois is famous.



## REFERENCES AND FURTHER INFORMATION

## Publications

NCHRP (National Cooperative Highway Research Program) Report 480 "A Guide to Best Practices for Achieving Context Sensitive Solutions" Available on the web at [http://gulliver.trb.org/publications/nchrp/nchrp\\_rpt\\_480.pdf](http://gulliver.trb.org/publications/nchrp/nchrp_rpt_480.pdf)

Peaks, Hayes, "Building Roads in Sync with Community Values," PUBLIC ROADS, vol. 62, no. 5, March/April 1999, <http://www.tfhr.gov/pubrds/marapr99/flexdsgn.htm>

"Thinking Beyond the Pavement" Conference Report, available on the web at <http://www.fhwa.dot.gov/csd/mdbroch.pdf>

Federal Highway Administration, "Flexibility in Highway Design," available on the web at <http://www.fhwa.dot.gov/environment/flex/index.htm>

## State CSS Websites

Illinois

<http://www.dot.state.il.us/css/home.html>

California

<http://www.dot.ca.gov/hq/oppd/context/>

Maryland

<http://www.sha.state.md.us/Events/OCE/thinkingBeyondPavement/thinking.asp>

Minnesota

<http://www.cts.umn.edu/education/csd/index.html>

New Jersey

<http://www.state.nj.us/dot/csd/>

New York State

<http://www.dot.state.ny.us/design/css/css.html>

Utah

<http://www.udot.utah.gov/esd/CSS/CSSMain.htm>

Washington State

<http://www.wsdot.wa.gov/biz/csd/>

## CSS-Oriented Websites

AASHTO - American Association of State Highway and Transportation Officials

[http://environment.transportation.org/environmental\\_issues/context\\_sensitive\\_solutions/overview.htm](http://environment.transportation.org/environmental_issues/context_sensitive_solutions/overview.htm)

Federal Highway Administration

<http://www.fhwa.dot.gov/csd/>

Kentucky Transportation Center

<http://www.ktc.uky.edu/ktctmb.html>

Project for Public Spaces

<http://pps.org/CSS/cssonline.htm>

## Endnotes

<sup>1</sup> "A Policy on Geometric Design of Highways and Streets," American Association of State Highway and Transportation Officials, 2001. This guidebook, commonly known as the "Greenbook" has, since 1950, been the national statement of design standards for federal, state and local transportation departments. However, many agencies, like IDOT, maintain their own set of standards for certain portions of geometric design or other policies.

<sup>2</sup> AASHTO is set to publish their CSS guidelines in Spring of 2004. The version used by IDOT personnel in developing state CSS policies was a "final draft" version, and it is not anticipated that major changes will be found in the published version. Changes that may affect the approaches detailed in this report – if any – will be examined and taken into account as IDOT continues to develop CSS policies.

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